

Title (en)

Convection heating device with autonomous electric power supply

Title (de)

Konvektionsheizgerät mit unabhängiger Stromversorgung

Title (fr)

Appareil de chauffage à convection avec alimentation électrique autonome du ventilateur

Publication

EP 1669672 A1 20060614 (FR)

Application

EP 05292315 A 20051102

Priority

FR 0412994 A 20041207

Abstract (en)

The device has a thermocouple (8) producing electrical current, when the temperature difference between its hot and cold sides is between 90 and 150 degrees, to supply an electric motor. The cold side is in contact with the base of a fin tube heat exchanger. The exchanger has an inlet (11) and an outlet (13) for air repressed by a ventilator (12). The ventilator is assembled at the inlet, and surrounded by a shielding case. The hot side of the thermocouple (8) receives heat of from a circular plate (5) extended by a leg (6) for transferring heat coming from a burner (4).

IPC 8 full level

F23N 1/00 (2006.01); **F24D 18/00** (2022.01)

CPC (source: EP US)

F24D 18/00 (2022.01 - EP US); **F24H 3/0488** (2013.01 - EP); **F24D 2101/60** (2022.01 - EP US); **F24D 2103/13** (2022.01 - EP US); **Y02B 30/00** (2013.01 - EP)

Citation (applicant)

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Citation (search report)

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- [A] DE 4409685 A1 19941013 - VAILLANT JOH GMBH & CO [DE], et al
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- [Y] PATENT ABSTRACTS OF JAPAN vol. 005, no. 206 (M - 104) 26 December 1981 (1981-12-26)
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- [Y] PATENT ABSTRACTS OF JAPAN vol. 009, no. 087 (M - 372) 17 April 1985 (1985-04-17)
- [A] "KEEPING THE HOME FIRES BURNING", MECHANICAL ENGINEERING, ASME. NEW YORK, US, vol. 115, no. 7, 1 July 1993 (1993-07-01), pages 66 - 69, XP000381661, ISSN: 0025-6501

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CN107288911A; EP2271840A4

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